

# INDIANA DEPARTMENT OF TRANSPORTATION

### STANDARDS COMMITTEE MEETING AGENDA

# Driving Indiana's Economic Growth

April 3, 2006

#### MEMORANDUM

TO: Standards Committee

FROM: Dannie L. Smith, Secretary

RE: Agenda for the April 13, 2006 Standards Committee Meeting

A Standards Committee meeting is scheduled for 9:00 a.m. on April 13, 2006 at <u>Materials and Tests</u>, located at 1260 South Shortridge Road, Indianapolis. The following agenda items are listed for consideration.

# New Business

Item 11-1	Mr. Kuchler	4/13/06	3
203.23.1	<i>Linear Grading</i>	200-36	
203.27(c)	Method of Measurement	200-39	
203.28	Basis of Payment	200-41	
Item 11-2	Mr. Miller	4/13/06	5
305.03	New PCC Base	300-8	
Item 11-3	Mr. Miller	4/13/06	6
305.05	Widening With PCC Base	300-10	
Item 11-4 503.07 503.07(a) 503.07(b) <del>503.07</del> 503.08 <del>503.08</del> 503.09	Mr. Kuchler  PCCP Stitching  Transverse  Longitudinal  Method of Measurement  Basis of Payment	4/13/06 500-32 500-32 500-32	7
Item 11-5 Standard Drawing	Mr. Kuchler 503-CCPS-01	4/13/06	9
Item 11-6	Mr. Miller	4/13/06	11
506.03	Concrete Mix Design	500-38	
Item 11-7 Design Policy	Mr. Wright DM Section 49-5.01(4)	4/13/06	12

Item 11-8 Standard Drawings	Mr. Wright 601-WBGA-01 601-WBGC-03A	4/13/06	15
Item 11-9 605.04(c)	Mr. Miller Proportioning and Placing	4/13/06 600-21	18
Item 11-10 610.02	Mr. Miller Materials	4/13/06 600-32	19
Item 11-11	Mr. Kuchler	4/13/06	20
621.09	Laying Sod	600-68	
Item 11-12	Mr. Miller	4/13/06	21
715.12	Pavement Replacement	700-112	
Item 11-13 724.02(b)	Mr. Wright Expansion Joint M	4/13/06 700-150	22
Item 11-14	Mr. Miller	4/13/06	24
801.11	Temporary Crossovers	800-11	
Item 11-15	Mr. Kuchler	4/13/06	25
805.03	General Requirements	800-36	
805.15	Method of Measurement	800-44	
805.16	Basis of Payment	800-45	
Item 11-16 805.08	Mr. Miller Controller Cabinet, Signal Service, and Detector Housing Installation	4/13/06 800-40	27
Item 11-17	Mr. Wright	4/13/06	28
906.07(c)	Type M	900-42	

cc:	Committee Members (7)	ACPA Representative (1)
	Districts (28)	Contech Representative (1)
	FHWA (3)	IKO Representative (1)
	ICI Representative (1)	Bridgetek Representative (1)
	IMAA Representative (1)	INDOT Toll Road (3)
	APAI Representative (1)	Traffic Design (3)
	ACEC Representative (1)	Estimators (3)
	ADS Representative (1)	Specification Writers (4)
	Mirich Representative	

Item No. 11-1 Mr. Kuchler Date: 4/13/06

REVISION TO 2006 STANDARD SPECIFICATIONS

SECTION 203, AFTER LINE 820, INSERT AS FOLLOWS:

# 203.23.1 Linear Grading

Linear grading shall consist of:

- a. earth wedging at the outside edge of a shoulder once the pavement has been resurfaced, widened, or replaced.
- b. earth wedging behind guardrail to obtain the required earth backup for the posts.
- c. median earth filling required for paving and placement of concrete median barrier.

These types of earthwork will not require benching.

SECTION 203, BEGIN LINE 945, DELETE AND INSERT AS FOLLOWS:

### (c) Measurement on a Linear Basis

When either or both the plans and contract provides for a pay item for linear grading, the measurement for payment will be based on the length of roadway actually constructed to the lines, grades, and typical cross sections specified. All classes of excavation involved, including required borrow, will not be measured for payment, but will be considered as included in the pay item for linear grading per mile (kilometer). Linear grading will be measured by the station or by the mile (kilometer). Measurement will be made once along each survey centerline for all linear grading completed on the line. No deductions will be made for bridges. Classes of excavation, except for required borrow, involved in linear grading will not be measured.

SECTION 203, BEGIN LINE 1040, INSERT AS FOLLOWS:

Items. Linear grading will be paid for at the contract unit price per station or mile (kilometer), as shown in the Schedule of Pay Items.

SECTION 203, AFTER LINE 1147, INSERT AS FOLLOWS:

MILE (km)

SECTION 203, AFTER LINE 1193, INSERT AS FOLLOWS:

The cost of all classes of excavation, except required borrow, within the limits of linear grading shall be included in the cost of linear grading.

Item No. 11-1 Cont.

Mr. Kuchler Date: 4/13/06

REVISION TO 2006 STANDARD SPECIFICATIONS

SECTION 203 CONTINUED

Other sections containing specific cross references:  None	General Instructions to Field Employees  Update Required? Y N  By - Addition or Revision  Frequency Manual  Update Required? Y N  By - Addition or Revision
Recurring Special Provisions potentially affected:	Standard Sheets potentially affected:
203-R-260	None
Motion: Mr. Second: Mr. Ayes: Nays:	Action: Passed as submitted; revised  Effective Letting Supplementals  Withdrawn. Resubmit?  Received FHWA Approval?

Item No. 11-2
Mr. Miller
Date: 4/13/06

# REVISION TO 2006 STANDARD SPECIFICATIONS

SECTION 305, BEGIN LINE 19, INSERT AS FOLLOWS:

# 305.03 New PCC Base

Construction of new PCC bases shall be in accordance with 502, except for 502.03, 502.14 and 502.20. The surface shall be finished with wet burlap or by wood floats. Smoothness of the base will be controlled with a 16 ft (4.9 m) long straightedge longitudinally and a 10 ft (3 m) long straightedge transversely.

Other sections containing specific cross references:	General Instructions to Field Employees Update Required? Y N By - Addition or Revision
None	Frequency Manual  Update Required? Y N  By - Addition or Revision
Recurring Special Provisions potentially affected:	Standard Sheets potentially affected:
None	None
Motion: Mr. Second: Mr. Ayes: Nays:	Action: Passed as submitted; revised  Effective Letting  Supplementals  Withdrawn. Resubmit?  Received FHWA Approval?

Item No. 11-3 Mr. Miller Date: 4/13/06

REVISION TO 2006 STANDARD SPECIFICATIONS

SECTION 305, BEGIN LINE 119, INSERT AS FOLLOWS:

Materials and construction requirements shall be in accordance with the applicable requirements of 502, except 502.03 and the following.

Other sections containing specific cross references:	General Instructions to Field Employees Update Required? Y N By - Addition or Revision
None	Frequency Manual Update Required? Y N By - Addition or Revision
Recurring Special Provisions potentially affected:	Standard Sheets potentially affected:
None	None
Motion: Mr. Second: Mr. Ayes: Nays:	Action: Passed as submitted; revised  Effective Letting  Supplementals  Withdrawn. Resubmit?

Item No. 11-4 Mr. Kuchler Date: 4/13/06

REVISION TO 2006 STANDARD SPECIFICATIONS

SECTION 503, AFTER LINE 216, INSERT AS FOLLOWS:

### 503.07 PCCP Stitching

This work shall consist of drilling holes in PCCP across cracks prior to installing epoxy coated reinforcing steel tie bars with a chemical anchor system to provide load transfer and tie the cement concrete pavement together.

The type, size, and length of the tie bars shall be as shown on the plans. The location, angle, size, and depth of the holes shall be as shown on the plans. The tie bars shall be placed so there is an equal length of bar embedded in the adjacent slabs without protruding through the bottom of the slab. The minimum depth of cover from the pavement surface to the tie bar shall be 2 in. (50 mm). Tie bars shall be installed on the day the holes are drilled.

The drills used for making the holes shall be hydraulic percussive type and shall be mounted on a rigid frame to provide proper position and alignment. The Contractor shall exercise care in drilling holes for the placement of the tie bars. Damage to any pavement shall be repaired as directed by the Engineer.

Prior to injecting the chemical anchor system the drilled holes shall be blown clean with compressed air using a device that will reach to the bottom of the hole to ensure that all debris or loose material has been removed.

The chemical anchor system shall be in accordance with 901.05 and installed in accordance with the manufacturer's recommendations. Immediately after installation of the bar, the top of the hole shall be filled with chemical anchor system material or excess anchor system trimmed to leave the chemical anchor system level with the existing pavement.

### (a)Transverse

Random cracks shall be corrected by stitching. The stitching shall extend along the entire length of the crack in the PCCP.

### (b) Longitudinal

Random cracks shall be corrected by stitching. The stitching shall extend along the entire crack in the PCCP. The spacing of the stitches shall be adjusted so that a stitch shall not be located within 9 in. (225 mm) of a D-1 contraction joint.

SECTION 503, BEGIN LINE 217, DELETE AND INSERT AS FOLLOWS:

### 503.07 503.08 Method of Measurement

SECTION 503, AFTER LINE 222, INSERT AS FOLLOWS:

*PCCP* stitching will be measured by the number of bars installed.

SECTION 503, BEGIN LINE 223, DELETE AND INSERT AS FOLLOWS:

# 503.08 503.09 Basis of Payment

SECTION 503, AFTER LINE 229, INSERT AS FOLLOWS:

PCCP stitching will be paid for at the contract unit price per each, complete in place.

Item No. 11-4 cont.

Mr. Kuchler Date: 4/13/06

SECTION 503 CONTINUED:  SECTION 503, AFTER LINE 233, INSERT AS FOLLOWS:  PCCP Stitching	REVISION TO 2006 STANDARD SPECIFICATIONS		
PCCP Stitching	SECTION 503 CONTINUED:		
The cost of drilled holes, epoxy coated reinforcing steel, chemical anchor system, and all necessary incidentals shall be included in the cost of PCCP stitching.  Other sections containing specific cross references:  None  None  Recurring Special Provisions potentially affected:  None  Recurring Special Provisions potentially affected:  None  See Item 11-5  See Item 11-5  Action: Passed as submitted; revised second: Mr.  Action: Passed as submitted; Capplementals			
Specific cross references:  Update Required? Y N By - Addition or Revision  Frequency Manual Update Required? Y N By - Addition or Revision  Recurring Special Provisions potentially affected:  None  See Item 11-5  Motion: Mr. Second: Mr. Ayes:  Update Required? Y N By - Addition or Revision  Standard Sheets potentially affected:  See Item 11-5  Action: Passed as submitted; revised Effective Letting Supplementals	The cost of drilled holes, epoxy coated reinforcing steel, chemical anchor system,		
Specific cross references:  Update Required? Y N By - Addition or Revision  Frequency Manual Update Required? Y N By - Addition or Revision  Recurring Special Provisions potentially affected:  None  See Item 11-5  Motion: Mr. Second: Mr. Ayes:  Update Required? Y N By - Addition or Revision  Standard Sheets potentially affected:  See Item 11-5  Action: Passed as submitted; revised Effective Letting Supplementals			
Specific cross references:  Update Required? Y N By - Addition or Revision  Frequency Manual Update Required? Y N By - Addition or Revision  Recurring Special Provisions potentially affected:  None  See Item 11-5  Motion: Mr. Second: Mr. Ayes:  Update Required? Y N By - Addition or Revision  Standard Sheets potentially affected:  See Item 11-5  Action: Passed as submitted; revised Effective Letting Supplementals			
Specific cross references:  Update Required? Y N By - Addition or Revision  Frequency Manual Update Required? Y N By - Addition or Revision  Recurring Special Provisions potentially affected:  None  See Item 11-5  Motion: Mr. Second: Mr. Ayes:  Update Required? Y N By - Addition or Revision  Standard Sheets potentially affected:  See Item 11-5  Action: Passed as submitted; revised Effective Letting Supplementals			
Specific cross references:  Update Required? Y N By - Addition or Revision  Frequency Manual Update Required? Y N By - Addition or Revision  Recurring Special Provisions potentially affected:  None  See Item 11-5  Motion: Mr. Second: Mr. Ayes:  Update Required? Y N By - Addition or Revision  Standard Sheets potentially affected:  See Item 11-5  Action: Passed as submitted; revised Effective Letting Supplementals			
Specific cross references:  Update Required? Y N By - Addition or Revision  Frequency Manual Update Required? Y N By - Addition or Revision  Recurring Special Provisions potentially affected:  None  See Item 11-5  Motion: Mr. Second: Mr. Ayes:  Update Required? Y N By - Addition or Revision  Standard Sheets potentially affected:  See Item 11-5  Action: Passed as submitted; revised Effective Letting Supplementals			
Specific cross references:  Update Required? Y N By - Addition or Revision  Frequency Manual Update Required? Y N By - Addition or Revision  Recurring Special Provisions potentially affected:  None  See Item 11-5  Motion: Mr. Second: Mr. Ayes:  Update Required? Y N By - Addition or Revision  Standard Sheets potentially affected:  See Item 11-5  Action: Passed as submitted; revised Effective Letting Supplementals			
Specific cross references:  Update Required? Y N By - Addition or Revision  Frequency Manual Update Required? Y N By - Addition or Revision  Recurring Special Provisions potentially affected:  None  See Item 11-5  Motion: Mr. Second: Mr. Ayes:  Update Required? Y N By - Addition or Revision  Standard Sheets potentially affected:  See Item 11-5  Action: Passed as submitted; revised Effective Letting Supplementals			
Specific cross references:  Update Required? Y N By - Addition or Revision  Frequency Manual Update Required? Y N By - Addition or Revision  Recurring Special Provisions potentially affected:  None  See Item 11-5  Motion: Mr. Second: Mr. Ayes:  Update Required? Y N By - Addition or Revision  Standard Sheets potentially affected:  See Item 11-5  Action: Passed as submitted; revised Effective Letting Supplementals			
Specific cross references:  Update Required? Y N By - Addition or Revision  Frequency Manual Update Required? Y N By - Addition or Revision  Recurring Special Provisions potentially affected:  None  See Item 11-5  Motion: Mr. Second: Mr. Ayes:  Update Required? Y N By - Addition or Revision  Standard Sheets potentially affected:  See Item 11-5  Action: Passed as submitted; revised Effective Letting Supplementals			
Specific cross references:  Update Required? Y N By - Addition or Revision  Frequency Manual Update Required? Y N By - Addition or Revision  Recurring Special Provisions potentially affected:  None  See Item 11-5  Motion: Mr. Second: Mr. Ayes:  Update Required? Y N By - Addition or Revision  Standard Sheets potentially affected:  See Item 11-5  Action: Passed as submitted; revised Effective Letting Supplementals			
Specific cross references:  Update Required? Y N By - Addition or Revision  Frequency Manual Update Required? Y N By - Addition or Revision  Recurring Special Provisions potentially affected:  None  See Item 11-5  Motion: Mr. Second: Mr. Ayes:  Update Required? Y N By - Addition or Revision  Standard Sheets potentially affected:  See Item 11-5  Action: Passed as submitted; revised Effective Letting Supplementals			
Specific cross references:  Update Required? Y N By - Addition or Revision  Frequency Manual Update Required? Y N By - Addition or Revision  Recurring Special Provisions potentially affected:  None  See Item 11-5  Motion: Mr. Second: Mr. Ayes:  Update Required? Y N By - Addition or Revision  Standard Sheets potentially affected:  See Item 11-5  Action: Passed as submitted; revised Effective Letting Supplementals			
Specific cross references:  Update Required? Y N By - Addition or Revision  Frequency Manual Update Required? Y N By - Addition or Revision  Recurring Special Provisions potentially affected:  None  See Item 11-5  Motion: Mr. Second: Mr. Ayes:  Update Required? Y N By - Addition or Revision  Standard Sheets potentially affected:  See Item 11-5  Action: Passed as submitted; revised Effective Letting Supplementals			
Specific cross references:  Update Required? Y N By - Addition or Revision  Frequency Manual Update Required? Y N By - Addition or Revision  Recurring Special Provisions potentially affected:  None  See Item 11-5  Motion: Mr. Second: Mr. Ayes:  Update Required? Y N By - Addition or Revision  Standard Sheets potentially affected:  See Item 11-5  Action: Passed as submitted; revised Effective Letting Supplementals			
None  Frequency Manual  Update Required? Y N  By - Addition or Revision  Recurring Special Provisions potentially affected:  None  See Item 11-5  Motion: Mr.  Second: Mr.  Action: Passed as submitted; revised Effective Letting Ayes:  Supplementals			
By - Addition or Revision  Recurring Special Provisions potentially affected:  None  See Item 11-5  Motion: Mr.  Second: Mr.  Action: Passed as submitted; revised Effective Letting Supplementals	None	<del>-</del>	
None  See Item 11-5  Motion: Mr.  Second: Mr.  Action: Passed as submitted; revised  Effective Letting  Ayes:  Supplementals			
Motion: Mr. Action: Passed as submitted; revised Second: Mr. Effective Letting Ayes: Supplementals		Standard Sheets potentially affected:	
Second: Mr. Effective Letting Ayes: Supplementals	None	See Item 11-5	
Ayes: Supplementals			
	Ayes:		

Withdrawn. Resubmit? \_\_\_\_\_

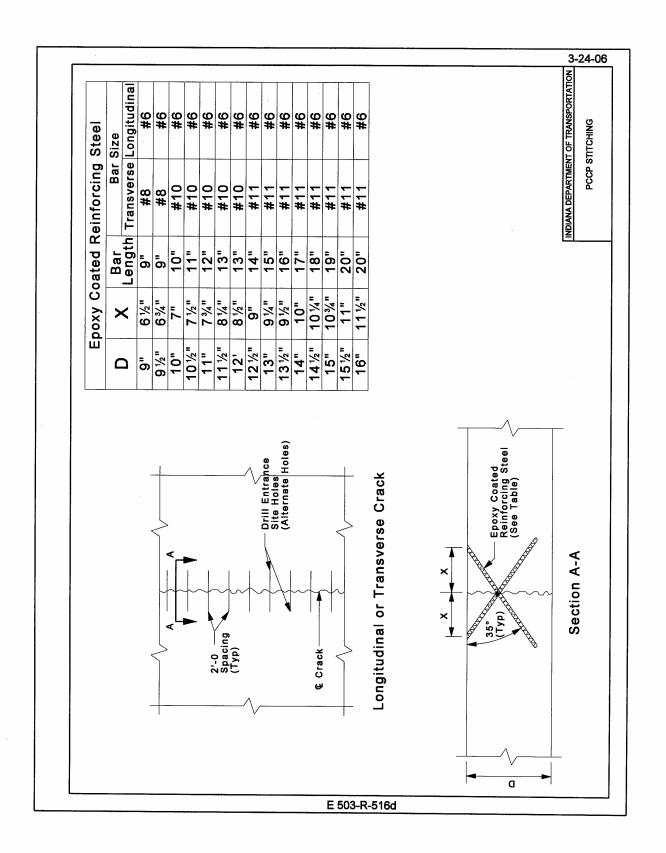
Received FHWA Approval? \_\_\_\_\_

Item No. 11-5 Mr. Kuchler Date: 4/13/06

# REVISION TO 2006 STANDARD DRAWING

503-CCPS-01

General Instructions to Field Employees Update Required? Y N By - Addition or Revision
Frequency Manual Update Required? Y N By - Addition or Revision
Standard Sheets potentially affected:
See Above
Action: Passed as submitted; revised  Effective Letting Supplementals  Withdrawn. Resubmit?  Received FHWA Approval?



Item No. 11-6 Mr. Miller Date: 4/13/06

# REVISION TO 2006 STANDARD SPECIFICATIONS

SECTION 506, AFTER LINE 50, INSERT AS FOLLOWS:

A concrete mix design and a trial batch will not be required where the quantity for partial depth patching is less than  $10 \text{ yd}^3 (8 \text{ m}^3)$  per contract.

Other sections containing specific cross references:	General Instructions to Field Employees Update Required? Y N By - Addition or Revision
None	Frequency Manual Update Required? Y N By - Addition or Revision
Recurring Special Provisions potentially affected:	Standard Sheets potentially affected:
None	None
Motion: Mr. Second: Mr. Ayes: Nays:	Action: Passed as submitted; revised  Effective Letting Supplementals  Withdrawn. Resubmit?
	Received FHWA Approval?

Item No. 11-7 Mr. Wright Date: 4/13/06

### REVISION TO DESIGN MANUAL

SECTION 49-5.01(04):

Revises the length of certain guardrail posts and the embedment length of these same guardrail posts.

Other sections containing specific cross references:	General Instructions to Field Employees Update Required? Y N By - Addition or Revision
None	Frequency Manual Update Required? Y N By - Addition or Revision
Recurring Special Provisions potentially affected:	Standard Sheets potentially affected:
None	See Item 11-8
Motion: Mr. Second: Mr. Ayes: Nays:	Action: Passed as submitted; revised  Effective Letting Supplementals  Withdrawn. Resubmit?
	Received FHWA Approval?

# INDIANA DEPARTMENT OF TRANSPORTATION



# INTER-DEPARTMENT COMMUNICATION Standards Section – Room N642



Writer's Direct Line 233-2273

### March 6, 2006

# DESIGN MEMORANDUM No. 06-XX POLICY CHANGE

TO: All Design, Operations, and District Personnel, and Consultants

FROM: \_\_\_\_\_

/s/ Richard L. VanCleave Richard L. VanCleave Design Policy Engineer

Office of Roadway Engineering Services

**SUBJECT:** Embedment of Guardrail Post on Graded Shoulder

**EFFECTIVE:** April 6, 2006 Letting

**REPLACES:** Design Manual Section 49-5.01(04)

The policy relating to required guardrail post embedment length on a graded shoulder has been changed.

- 1. A 0.6 m (2'-0") distance is desirable on a graded shoulder as measured from the back face of guardrail post before the shoulder slope break point.
- 2. Where this distance is  $\ge 0$  3.m (1'-0"), the guardrail post length for this condition is 2.31 m (7'-0"). A standard W-beam guardrail post should be used.
- 3. Where this distance is < 0.3 m (1'-0"), the guardrail post length for this condition is 2.43 m (8'-0").
- 4. The embedment for guardrail post must be in cohesive or cohesionless (sandy) soil. Where located in an aggregate wedge, the 2.43 m (8'-0) post should be used.

Attached is an interim design procedure to replace Section 49-5.01(04) of the Design Manual. This interim design procedure will remain in effect until superseded by an official Design Manual revision or another Design Memorandum/Policy Change document. In addition, Design Memorandum No. 06-XX Technical Advisory has been prepared to provide additional information regarding the design and contract document preparation related to guardrail posts. Designers are instructed to follow the attached interim procedure.

# 49-5.01(04) Guardrail and Embankment Slopes

A semirigid barrier should not be placed on a slope steeper than 10:1. However, no barrier should be placed on any slope steeper than 6:1.

The guardrail post embedment length must be appropriate either in cohesive or cohesionless (sandy) soil. The INDOT Standard Drawings present the criteria for location of the guardrail post and the required post embedment length for the corresponding location of the post on a graded shoulder. A 0.6 m (2'-0") distance on the graded shoulder, before the shoulder slope break point as measured from the back face of the guardrail post is desirable for adequate soil foundation support. Where site conditions allow 0.3 m (1'-0") or greater graded shoulder width to be constructed, the guardrail post length is 2.13 m (7'-0"). Where site conditions allow less than 1.0 m (1'-0") graded shoulder width to be constructed, the guardrail post embedment length should be increased to 2.43 m (8'-0") to compensate for the reduced soil foundation support.

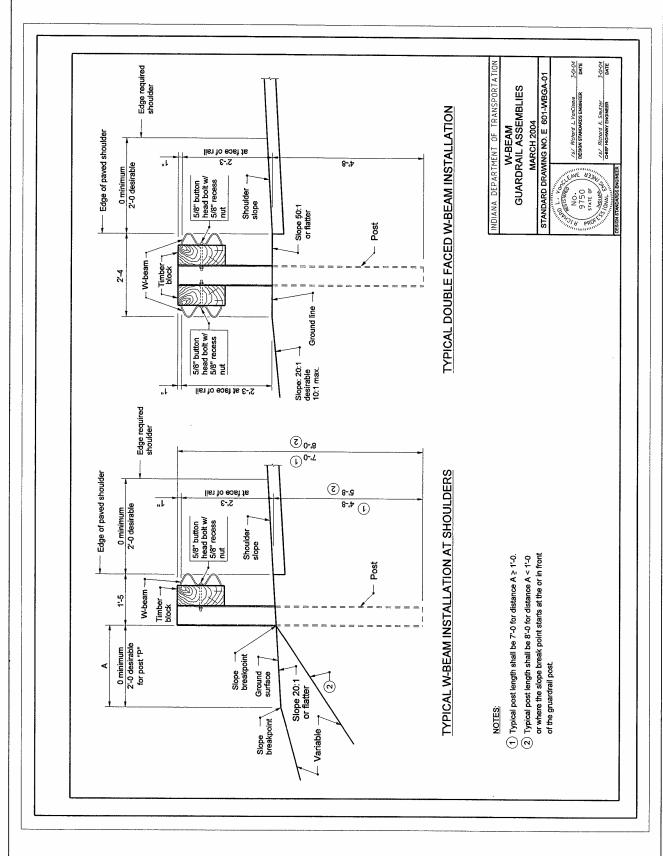
Where guardrail posts must be placed on steep shoulder slopes (1:1 or 2:1) or in aggregate wedges adjacent to the edge of the effective usable shoulder, 2.43 m (8'-0") post, discussed above should be used to provide adequate foundation support for the guardrail.

Item No. 11-8
Mr. Wright
Date: 4/13/06

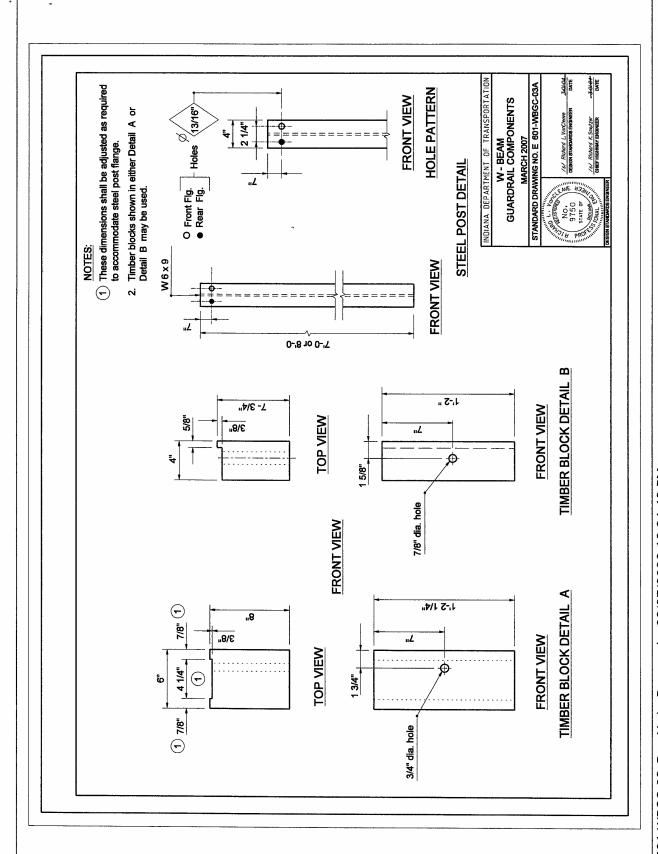
# REVISION TO 2006 STANDARD DRAWINGS

601 WBGA-01 W-Beam Guardrail Assemblies 601-WBGC-03A W-Beam Guardrail Components

Other sections containing specific cross references:	General Instructions to Field Employees Update Required? Y N By - Addition or Revision
None	Frequency Manual Update Required? Y N By - Addition or Revision
Recurring Special Provisions potentially affected:	Standard Sheets potentially affected:
None	See Above
Motion: Mr. Second: Mr. Ayes: Nays:	Action: Passed as submitted; revised  Effective Letting  Supplementals
	Withdrawn. Resubmit?
	Received FHWA Approval?



...\601-WBGA-01\_Rev\_Yadu\_Proposed\_ 03/07/2006 10:24:44 AM



...\601-WBGC-03\_Rev\_Yadu\_Proposed\_ 02/27/2006 12:34:49 PM

Item No. 11-9
Mr. Miller
Date: 4/13/06

REVISION TO 2006 STANDARD SPECIFICATIONS

SECTION 605, BEGIN LINE 61, DELETE AND INSERT AS FOLLOWS:

# (c) Proportioning and Placing

Concrete shall be proportioned, mixed, and placed in accordance with 502, except 502.03 will not apply. Where integral curb and gutter is specified, that portion of the curb below the upper surface elevation of the adjoining pavement shall be constructed by extending the pavement to the outer vertical plane of the curb at the time the pavement is placed. The concrete used in this extension shall be the same composition as that of the pavement.

Other sections containing specific cross references:	General Instructions to Field Employees Update Required? Y N By - Addition or Revision
None	Frequency Manual Update Required? Y N By - Addition or Revision
Recurring Special Provisions potentially affected:	Standard Sheets potentially affected:
None	None
Motion: Mr. Second: Mr. Ayes: Nays:	Action: Passed as submitted; revised  Effective Letting Supplementals  Withdrawn. Resubmit?
	Received FHWA Approval?

Item No. 11-10
Mr. Miller
Date: 4/13/06

# REVISION TO 2006 STANDARD SPECIFICATIONS

SECTION 610, AFTER LINE 20, INSERT AS FOLLOWS:

A concrete mix design in accordance with 502.03 will not be required.

Other sections containing specific cross references:	General Instructions to Field Employees  Update Required? Y N  By - Addition or Revision
None	Frequency Manual Update Required? Y N By - Addition or Revision
Recurring Special Provisions potentially affected:	Standard Sheets potentially affected:
None	None
Motion: Mr. Second: Mr. Ayes: Nays:	Action: Passed as submitted; revised  Effective Letting  Supplementals  Withdrawn. Resubmit?
	Received FHWA Approval?

Item No. 11-11
Mr. Kuchler
Date: 4/13/06

REVISION TO 2006 STANDARD SPECIFICATIONS

SECTION 621, BEGIN LINE 343, DELETE AS FOLLOWS:

# 621.09 Laying Sod

Sod strips shall be laid earefully by hand in the designated direction. The sod shall

Other sections containing specific cross references:	General Instructions to Field Employees Update Required? Y N By - Addition or Revision
None	Frequency Manual  Update Required? Y N  By - Addition or Revision
Recurring Special Provisions potentially affected:	Standard Sheets potentially affected:
None	None
Motion: Mr. Second: Mr. Ayes: Nays:	Action: Passed as submitted; revised  Effective Letting Supplementals  Withdrawn. Resubmit?  Received FHWA Approval?

Item No. 11-12
Mr. Miller
Date: 4/13/06

# REVISION TO 2006 STANDARD SPECIFICATIONS

SECTION 715, BEGIN LINE 362, INSERT AS FOLLOWS:

The pavement replacement areas in Portland Cement Concrete pavements shall be filled with PCCP in accordance with 502, except 502.03 will not apply.

Other sections containing specific cross references:  None	General Instructions to Field Employees  Update Required? Y N  By - Addition or Revision  Frequency Manual  Update Required? Y N  By - Addition or Revision
Recurring Special Provisions potentially affected:	Standard Sheets potentially affected:
None	None
Motion: Mr. Second: Mr. Ayes: Nays:	Action: Passed as submitted; revised  Effective Letting  Supplementals
	Withdrawn. Resubmit?
	Received FHWA Approval?

Item No. 11-13 Mr. Wright

Mr. Wright
Date: 4/13/06

### REVISION TO 2006 STANDARD SPECIFICATIONS

SECTION 724, BEGIN LINE 33, DELETE AND INSERT AS FOLLOWS:

# (b) Expansion Joint M

This joint shall consist of prefabricated, multiple elastomeric seals, separator beams, and support bars. The structural design of expansion joint M shall be in accordance with the current AASHTO Standard Specifications for Highway Bridges and shall be for the same design loading as the bridge structure at which it is installed, but in no case less than HS 20 – 44 truck loading and impact. The joint shall be designed to accommodate the movement shown on the plans. The sliding cover plate required over that portion of expansion joint M located in a sidewalk or concrete rail shall be the same material as the extrusion and shall be galvanized in accordance with ASTM A 123.

The manufacturer of the joint assembly shall prepare shop drawings showing details of the assembly. Three sets of the shop drawings, manufacturer's specifications and joint setting data shall be submitted for approval. This information shall be approved prior to manufacture of the joint.

The joint shall be constructed in accordance with the details shown on the shop drawings as prepared by the manufacturer of the expansion joint assembly.

The modular expansion joint assembly shall be preset by the manufacturer in accordance with the approved shop drawings, joint setting data and specifications. The assembly shall be properly secured for shipping and contain provision for final field adjustment at the time of installation. Final adjustment of the assembly shall be made at the direction of the Engineer. All movements due to factors such as shrinkage, creep and mid-slab deflection shall be properly accounted for prior to this final adjustment.

The joint, including anchor assembly, shall be shop fabricated, delivered and installed as a continuous unit for lengths up to 44 ft (13 m). Joints longer than 44 ft (13 m) shall be furnished in continuous units or in appropriate shorter sections as shown on the shop drawings and approved by the Engineer. Joints used in stage construction shall be furnished in sections appropriate to accommodate the work. All joints furnished in sections shall be spliced with welds, with ends prepared for welding in the shop. All welds, both shop and field, shall be in accordance with 711.32.

All welds in contact with the elastomeric seals shall be ground smooth. Metal surfaces in direct contact with the elastomeric seal shall be clean and properly treated in accordance with the manufacturer's recommendations to provide a high strength bond between elastomeric seal and mating metal surfaces. The elastomeric seals shall be clean and free of foreign materials. All exposed structural steel surfaces, except stainless steel or teflon coated, shall be painted in accordance with 619.

The method of installation of the joint, including all items incidental to the installation, shall be in accordance with the recommendations of the manufacturer. In all cases, excess sealant shall be removed before it has set. The Contractor shall submit for approval the manufacturer's recommendations for the installation of the joint. This information shall be approved before installation begins.

Item No. 11-13 cont.

Mr. Wright Date: 4/13/06

### REVISION TO 2006 STANDARD SPECIFICATIONS

SECTION 724 CONTINUED.

The profile of the joint in the roadway area shall conform to the roadway cross section. Where changes in direction are required, such as at curbs or concrete rails, the sections shall be cut to the bevel required to produce the same cross section on each piece being joined. Slider plates shall be provided at curbs, walkways and concrete rails as part of the completed joint assembly.

Other sections containing specific cross references:	General Instructions to Field Employees Update Required? Y N By - Addition or Revision
None	Frequency Manual Update Required? Y N By - Addition or Revision
Recurring Special Provisions potentially affected:	Standard Sheets potentially affected:
724-B-046	None
Motion: Mr. Second: Mr. Ayes: Nays:	Action: Passed as submitted; revised  Effective Letting Supplementals  Withdrawn. Resubmit?

Item No. 11-14
Mr. Miller
Date: 4/13/06

### REVISION TO 2006 STANDARD SPECIFICATIONS

SECTION 801 BEGIN LINE 500, INSERT AS FOLLOWS:

Temporary crossovers shall be either type A or type B as shown on the plans and shall be constructed in accordance with the applicable sections of 207, 402 or 502. *The requirements of 502.03 will not apply*. When required to maintain median drainage, a 15 in. (375 mm) diameter pipe shall be placed at the centerline of the median under the crossover. If the crossover is to remain in place for future construction, the pipe shall have appropriate grated box ends in accordance with 715.

other sections containing specific cross references:  None	Update Required? Y N By - Addition or Revision Frequency Manual Update Required? Y N By - Addition or Revision
Recurring Special Provisions potentially affected:	Standard Sheets potentially affected:
None	None
Motion: Mr. Second: Mr. Ayes: Nays:	Action: Passed as submitted; revised  Effective Letting  Supplementals  Withdrawn. Resubmit?
	withdrawn. Resubmit:
	Received FHWA Approval?

Item No. 11-15 Mr. Kuchler

Date: 4/13/06

### REVISION TO 2006 STANDARD SPECIFICATIONS

SECTION 805, BEGIN LINE 58, DELETE AND INSERT AS FOLLOWS:

When directed, temporary stop signs shall be erected at the intersection. When no work is in progress, the intersection shall have at least two operating signal faces for each approach. When the new installations are completed, any all existing signal equipment and materials including wood poles, steel poles, and cast-iron handhole rings and covers which have not been used in the new installation shall be carefully removed. Regardless of the right to materials found on the project, as set out in other sections of these specifications, these items designated in the contract documents, and field identified by the Department, as traffic signal equipment to be salvaged by the Department or local unit of government shall be stored at a secure site and salvaged by the appropriate governmental agency until such time as it is either transported to the District Office, when designated as a pay item, or salvaged by the local unit of government. The Contractor shall verify that the field identification placed by the Department has not been removed by vandalism or natural causes. If the Contractor has reason to believe field identifications have been removed, it shall contact the Department. The Contractor shall be responsible for any all damage or loss of this equipment and shall repair or replace the same with no additional payment damaged or lost equipment as directed. All signal equipment removed and not designated to be salvaged shall become the property of the Contractor and shall be disposed of in accordance with 202.

SECTION 805, AFTER LINE 455, INSERT AS FOLLOWS:

Traffic signal equipment removal and transportation of salvageable signal equipment will not be measured.

SECTION 805, AFTER LINE 471, INSERT AS FOLLOWS:

The removal of existing traffic signal equipment designated to be removed will be paid for at the contract lump sum price for traffic signal equipment, remove. When designated as a pay item, the transportation of salvageable signal equipment will be paid for at the contract lump sum price for transportation of salvageable signal equipment.

SECTION	805, AFTER LINE 518, INSERT AS FOLLOWS:  Traffic Signal Equipment, Remove	<i>L</i> S
SECTION	805, AFTER LINE 524, INSERT AS FOLLOWS:  Transportation of Salvageable Signal Equipment	<i>L</i> S
SECTION	805, AFTER LINE 595, INSERT AS FOLLOWS:	

The cost to repair or replace damaged or lost salvageable traffic signal equipment shall be included in the cost of transportation of salvageable signal equipment.

Item No. 11-15 cont.

Mr. Kuchler Date: 4/13/06

# REVISION TO 2006 STANDARD SPECIFICATIONS

SECTION 805 CONTINUED.

Other sections containing specific cross references:	General Instructions to Field Employees Update Required? Y N By - Addition or Revision
805.03 104.05 Pg 100-28	Frequency Manual  Update Required? Y N  By - Addition or Revision
805.15 None 805.16 None	
Recurring Special Provisions potentially affected:	Standard Sheets potentially affected:
805-T-084	None
Motion: Mr. Second: Mr. Ayes: Nays:	Action: Passed as submitted; revised  Effective Letting  Supplementals
-	Withdrawn. Resubmit?
	Received FHWA Approval?

Item No. 11-16
Mr. Miller
Date: 4/13/06

### REVISION TO 2006 STANDARD SPECIFICATIONS

SECTION 805, BEGIN LINE 252, INSERT AS FOLLOWS:

A minimum of 12 in. (300 mm) and a maximum of 18 in. (450 mm) of loop wire duct will be permitted in the detector housing for each loop lead. Concrete used in the installation of detector housings shall be in accordance with 506, except where a portion of the road is closed or where there is no vehicular traffic, then class A concrete in accordance with 702 may be used. *The requirements of 506.03 and 506.05 will not apply.* The concrete shall be placed flush with existing surface and shall be covered with a steel plate during the setting time.

Other sections containing specific cross references:	General Instructions to Field Employees Update Required? Y N By - Addition or Revision
None	Frequency Manual Update Required? Y N By - Addition or Revision
Recurring Special Provisions potentially affected:	Standard Sheets potentially affected:
None	None
Motion: Mr. Second: Mr. Ayes: Nays:	Action: Passed as submitted; revised  Effective Letting  Supplementals  Withdrawn. Resubmit?
	Received FHWA Approval?

Item No. 11-17

Mr. Wright Date: 4/13/06

### REVISION TO 2006 STANDARD SPECIFICATIONS

SECTION 906, BEGIN LINE 201, DELETE AND INSERT AS FOLLOWS:

# (c) Type M

Structural steel shall be in accordance with ASTM A 36 (A 36M), A 570 (A 570M), A 242 (A 242M), A 588 (A 588M), or Merchant Quality 1010, 1020.

Sealant and grout shall be in accordance with Federal Specification TT-S-00230 or as recommended by the joint manufacturer.

Elastomer shall be neoprene in accordance with ASTM D 3542.

The structural steel and sealant shall be covered by a type C certification and the elastomer by a type B certification, both in accordance with 916.

Bearings above and below the support bar shall be a nylon or urethane compound with polytetrafluorethylene riding surfaces. All components of the system shall be accessible to periodic inspection and component replacement if necessary.

The elastomer seals shall be in accordance with the requirements as follows:

- 1. *be held in place by compressive forces throughout the normal limits of joint movement,*
- 4.2 be supplied and installed in one piece;
- 23. have corner locked edges for a watertight fit;
- 34. not be any part of the load bearing riding surface;
- 45. be installed using seal lubricant-adhesive or be mechanically clamped in position to produce a watertight seal;
- 56. have a shape which promotes self removal of foreign material during normal joint operation;
- 67. be recessed 1/2 in. (13 mm) below the riding surface throughout the normal limits of joint movement;
- 78. be held in position by the separator beams;
- 89. have a hollow box shape for joints utilizing urethane equilibrium control spacers or a strip seal configuration for joints using a mechanical linkage to maintain equidistant separator beam spacing. *The joint shall have a maximum opening of 3 in. (75 mm) per seal.*

The separator beams shall be in accordance with the requirements as follows:

- 1. provide the riding surface across the joint;
- 2. have an extruded or machined shape suitable to hold the seals;
- 3. be stable against tipping, tilting, or lifting during application of traffic loads by use of a suitable shape and connection to the support bar;
- 4. be supported individually on their own independent support bars;
- 5. maintain equidistant spacing through use of suitable urethane equilibrium type control spacers *which work counter force to the compression forces of the seals* or through a positive horizontal mechanical linkage or proportioning bar.

Item No. 11-17 cont.

Mr. Wright Date: 4/13/06

### REVISION TO 2006 STANDARD SPECIFICATIONS

SECTION 906 CONTINUED.

The support bars shall be in accordance with the requirements as follows:

- 1. incorporate stainless sliding surfaces to minimize resistance to joint movements;
- 2. be supported above, below, and laterally as required to prevent lifting, to transmit bearing loads, and to maintain positioning of the bar.

All support bar boxes and joint housings shall have top, bottom, and sides made of steel plate with 1/2 in. (13 mm) minimum thickness. Anchorages shall consist of looped No. 5 reinforcing bars welded to 1/2 in. (13 mm) steel plates spaced at 9 in. (230 mm) centers. No unwelded steel to steel contact will be permitted.

The sliding cover plate required over that portion of expansion joint M located in a sidewalk or concrete rail shall be the same material as the extrusion and shall be galvanized in accordance with ASTM A 123.

Other sections containing specific cross references:  724.02 Pg 700-150	General Instructions to Field Employees Update Required? Y N By - Addition or Revision Frequency Manual Update Required? Y N By - Addition or Revision
Recurring Special Provisions potentially affected:	Standard Sheets potentially affected:
724-B-046	None
Motion: Mr. Second: Mr. Ayes: Nays:	Action: Passed as submitted; revised  Effective Letting Supplementals  Withdrawn. Resubmit?  Received FHWA Approval?